HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, Colorado 80527-2400

PATENT APPLICATION

ATTORNEY DOCKET NO. 10990356-2

AF 2854

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Curtis Gregory Kelsay

Confirmation No.: 9325

Application No.: 09/491,994

Examiner: Kevin D. Williams

Filing Date: Jan. 26, 2000

Group Art Unit: 2854

Title: AN OPTICAL INTERLINK BETWEEN AN OPTICAL TRANSDUCER AND OPTICAL DATA PORT

Mail Stop Appeal Brief-Patents
Commissioner For Patents
PO Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF

Sir:

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on **Feb. 23, 2005**.

The fee for filing this Appeal Brief is (37 CFR 1.17(c)) $500.00.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

( ) (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d) for the total number of months checked below:

( )	one month	$120.00
( )	two months	$450.00
( )	three months	$1020.00
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( ) The extension fee has already been filled in this application.

(X) (b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account **08-2025** the sum of **$500.00**. At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees. A duplicate copy of this sheet is enclosed.

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Typed Name: **Scott A. Lund**

Signature: _____

Respectfully submitted,

Curtis Gregory Kelsay

By _____

Scott A. Lund
Attorney/Agent for Applicant(s)
Reg. No. **41,166**

Date: **April 22, 2005**

Telephone No.: **(612) 573-2006**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant:	Curtis Gregory Kelsay	Examiner:	Kevin D. Williams
Serial No.:	09/491,994	Group Art Unit:	2854
Filed:	January 26, 2000	Docket No.:	10990356-2
Title:	AN OPTICAL INTERLINK BETWEEN AN OPTICAL TRANSDUCER AND OPTICAL DATA PORT		

APPEAL BRIEF TO THE BOARD OF PATENT APPEALS AND INTERFERENCES OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

APPEAL BRIEF

This Appeal Brief is presented in support of the Notice of Appeal filed on February 23, 2005, from the Final Rejection mailed December 23, 2004 rejecting claims 42, 45-49, and 51-55 of the above-identified application.

The U.S. Patent and Trademark Office is hereby authorized to charge **Deposit Account No. 08-2025** in the amount of **$500.00** for Filing a Brief in Support of an Appeal as set forth under 37 C.F.R. 1.17(c). At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account 08-2025 pursuant to 37 C.F.R. 1.25. Additionally, please charge any fees required under 37 C.F.R. 1.16, 1.17, 1.19, 1.20, and 1.21 to Deposit Account 08-2025.

Appellant respectfully requests reversal of the Examiner's rejection of claims 42, 45-49, and 51-55.

TABLE OF CONTENTS

REAL PARTY IN INTEREST

The real party in interest is Hewlett-Packard Development Company, LP having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

RELATED APPEALS AND INTERFERENCES

Appellant submits that there are no related appeals or interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal.

STATUS OF CLAIMS

Claims 42, 45-49, and 51-55 are pending in the application (see Claims Appendix), and are the subject of the present Appeal. Claims 1-41, 43, 44, and 50 were previously cancelled.

Claims 42, 45, 48, 49, 51, 52, and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pressler et al. U.S. Patent No. 6,005,700 in view of Suzuki U.S. Patent No. 5,857,065, and claims 46, 47, 53, and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pressler et al. U.S. Patent No. 6,005,700 in view of Suzuki U.S. Patent No. 5,857,065, and further in view of Sedlmayr U.S. Patent No. 6,034,818.

STATUS OF AMENDMENTS

No amendments have been entered subsequent to the Final Rejection mailed December 23, 2004. The claims listed in the Claims Appendix, therefore, reflect the claims as of December 23, 2004.

SUMMARY OF THE CLAIMED SUBJECT MATTER

One aspect of the present invention, as claimed in independent claim 42, provides a printer including a housing, a print engine (40) disposed within the housing, a printed circuit assembly (60) disposed within the housing, a direct wire port (61) electrically coupled to the printed circuit assembly, an optical data port (64) formed in the housing, an optical transducer

(62), and a light pipe assembly (63) (see, e.g., Specification at page 2, line 25 - page 3, line 24; and Figs. 1 and 2). The optical transducer is electrically coupled to the printed circuit assembly and configured to transmit and receive information optically, and the light pipe assembly optically couples and provides bi-directional communication between the optical transducer and the optical data port (see, e.g., Specification at page 3, lines 4-24; and Figs. 1 and 2).

One aspect of the present invention, as claimed in independent claim 52, provides a printer including a printer housing, a print engine (40) disposed within the printer housing, a printed circuit assembly (60) disposed within the printer housing, a direct wire port (61) electrically coupled to the printed circuit assembly, an optical transducer (62), and an optical data port (64) (see, e.g., Specification at page 2, line 25 - page 3, line 24; and Figs. 1 and 2). The optical transducer is electrically coupled to the printed circuit assembly and configured to transmit and receive information optically, and the optical data port is formed in the printer housing and arranged to communicate with an open environment (see, e.g., Specification at page 3, lines 4-16; and Figs. 1 and 2). A transmit light pipe (70) is disposed within the printer housing and adapted to optically transmit information from the optical transducer to the optical data port, and a receive light pipe (71) is disposed within the printer housing and adapted to optically receive information via the optical data port and optically transmit the received information to the optical transducer (see, e.g., Specification at page 3, lines 17-24; and Figs. 1 and 2).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Appellant seeks review of the rejection of claims 42, 45, 48, 49, 51, 52, and 55 under 35 U.S.C. 103(a) as being unpatentable over Pressler et al. U.S. Patent No. 6,005,700 in view of Suzuki U.S. Patent No. 5,857,065, and the rejection of claims 46, 47, 53, and 54 under 35 U.S.C. 103(a) as being unpatentable over Pressler et al. U.S. Patent No. 6,005,700 in view of Suzuki U.S. Patent No. 5,857,065, and further in view of Sedlmayr U.S. Patent No. 6,034,818.

ARGUMENT

Rejection Under 35 U.S.C. 103(a)

A. Applicable Law

Under 35 U.S.C. §103, the Examiner has the burden to establish a *prima facie* case of obviousness. *In re Fine,* 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Three criteria must be satisfied to establish a *prima facie* case of obviousness. First, the Examiner must show that some objective teaching in the prior art or some knowledge generally available to one of ordinary skill in the art would teach, suggest, or motivate one to modify a reference or to combine the teachings of multiple references. *Id.* Second, the prior art can be modified or combined only so long as there is a reasonable expectation of success. *In re Merck & Co., Inc.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Third, the prior art reference or combined prior art references must teach or suggest all of the claim limitations. *In re Royka,* 490 F.2d 981, 180 USPQ 580 (CCPA 1974). These three criteria are also set forth in M.P.E.P §706.02(j). Even when obviousness is based on a single reference, there must be a showing of suggestion or motivation to modify the teachings of that reference. *In re Kotzab,* 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). In performing the obviousness inquiry under 35 U.S.C. §103, the Examiner must avoid hindsight. *In re Bond,* 910 F.2d 831, 834, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990), *reh'g denied,* 1990 U.S. App. LEXIS 19971 (Fed. Cir. 1990).

B. Rejection of Claims 42, 45, 48, 49, 51, 52, and 55 under 35 U.S.C. §103(a) and Claims 46, 47, 53, and 54 under 35 U.S.C. 103(a)

Because the rejection of claims 42, 45, 48, 49, 51, 52, and 55 under 35 U.S.C. §103(a) as being unpatentable over Pressler et al. U.S. Patent No. 6,005,700 in view of Suzuki U.S. Patent No. 5,857,065 fails to establish a *prima facie* case of obviousness, the rejection of claims 42, 45, 48, 49, 51, 52, and 55 is not correct and should be withdrawn, and the rejection of claims 46, 47, 53, and 54 is not correct and should be withdrawn.

The printer of independent claim 42 includes, in combination, "a light pipe assembly optically coupling and providing bi-directional communication between the optical transducer and the optical data port." In addition, the printer of independent claim 52 includes, in combination, "a transmit light pipe disposed within the printer housing and adapted to optically transmit information from the optical transducer to the optical data port,"

and "a receive light pipe disposed within the printer housing and adapted to optically receive information via the optical data port and optically transmit the received information to the optical transducer."

The Examiner contends that the Pressler et al. patent teaches a housing having a printhead circuit assembly disposed within the housing, a direct wire port electrically coupled to the printed circuit assembly, an optical transducer electrically coupled to the printed circuit assembly and configured to transmit information optically, an optical data port formed in the housing, a light pipe assembly optically coupling and providing communication between the optical transducer and the optical data port, and a transmit light pipe adapted to optically transmit information from the optical transducer to the optical data port, the optical data port being arranged to communicate with an open environment (Final Rejection mailed December 23, 2004, at page 2, para. 2, lines 3-10).

The Examiner recognizes, however, that the Pressler et al. patent does not teach, amongst other things, a light pipe assembly providing bi-directional communication between the optical transducer and the optical data port nor a receive light pipe adapted to optically receive information via the optical data port and optically transmit the received information to the optical transducer (Final Rejection mailed December 23, 2004, at page 3, lines 6-12). As such, the Examiner contends that the Suzuki patent teaches an optical transducer configured to transmit and receive information optically, bi-directional communication between the optical transducer and an optical data port, and optically receiving information via the optical data port and optically transmitting the received information to the optical transducer (Final Rejection mailed December 23, 2004, at page 3, lines 13-17). Thus, the Examiner suggests that it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Pressler to "have a receive light pipe...as taught by Suzuki" (Final Rejection mailed December 23, 2004, at page 3, lines 18-22).

Appellant submits that modifying the Pressler et al. patent in view of the Suzuki patent, in the manner suggested by the Examiner, does not teach or suggest all of the limitations of the present claims. To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

The Suzuki patent does not teach or suggest a receive light pipe nor a light pipe assembly providing bi-directional communication between an optical transducer and an optical data port. Rather, the Suzuki patent merely teaches a printer communication adapter 51 including a data transmitting and receiving portion 57 comprising an infrared light emitter (infrared-radiation emitting diode, i.e., infrared LED) 61 and an infrared light receiver (photodiode) 63, wherein an infrared filter 65 is provided in front of the infrared LED 61 and the photodiode 63 (Fig. 1; col. 2, lines 44-48). As such, the photodiode 63 of the Suzuki patent converts optical data output as infrared pulse signals into electrical signals, and the infrared LED 61 of the Suzuki patent emits a predetermined response data as infrared pulse signals (col. 2, lines 48-52). However, neither the infrared LED 61 nor the photodiode 63 constitute, nor does the printer communication adapter 51 and, more specifically, the data transmitting and receiving portion 57 of the printer communication adapter 51 include a light pipe or a light pipe assembly.

Accordingly, modifying the Pressler et al. patent by the Suzuki patent, in the manner suggested by the Examiner, would not overcome the shortcomings of the Pressler et al. patent and, therefore, would not result in the recited claims. Thus, Appellant submits that the combination of the Pressler et al. and Suzuki patents does not teach or suggest each and every element of independent claim 42 nor independent claim 52. More specifically, with respect to the Pressler et al. and Suzuki patents, neither of these patents, individually or in combination, teach or suggest a printer including a light pipe assembly optically coupling and providing bi-directional communication between an optical transducer and an optical data port, as claimed in independent claim 42, nor a printer including a transmit light pipe disposed within a printer housing and adapted to optically transmit information from an optical transducer to an optical data port, and a receive light pipe disposed within the printer housing and adapted to optically receive information via the optical data port and optically transmit the received information to the optical transducer, as claimed in independent claim 52.

In view of the above, Appellant submits that the Examiner has not established a *prima facie* case of obviousness of independent claims 42 and 52, and that independent claims 42 and 52 are each patentably distinct from the Pressler et al. and Suzuki patents. As dependent claims 45-49 further define patentably distinct claim 42, and dependent claims 53-55 further

define patentably distinct claim 52, Appellant submits that dependent claims 45-49 and 53-55 are also patentably distinct from the Pressler et al. and Suzuki patents. Appellant, therefore, respectfully submits that the rejections of claims 42, 45, 48, 49, 51, 52, and 55 and claims 46, 47, 53, and 54 under 35 U.S.C. §103(a) are not correct and should be withdrawn, and that claims 42, 45-49 and 51-55 should be allowed.

CONCLUSION

For the above reasons, Appellant respectfully submits that the art of record neither anticipates nor renders obvious the claimed invention. Thus, the claimed invention does patentably distinguish over the art of record. Appellant, therefore, respectfully submits that the above rejection of claims 42, 45-49 and 51-55 is not correct and should be withdrawn, and respectfully requests that the Examiner be reversed and that all pending claims be allowed.

Any inquiry regarding this Appeal Brief should be directed to either Gregg W. Wisdom at Telephone No. (360) 212-8052, Facsimile No. (360) 212-3060 or Scott A. Lund at Telephone No. (612) 573-2006, Facsimile No. (612) 573-2005. In addition, all correspondence should continue to be directed to the following address:

Hewlett-Packard Company
Intellectual Property Administration
P.O. Box 272400
3404 E. Harmony Road, M/S 35
Fort Collins, Colorado 80527-2400

Respectfully submitted,

Curtis Gregory Kelsay,

By their attorneys,

DICKE, BILLIG & CZAJA, PLLC
Fifth Street Towers, Suite 2250
100 South Fifth Street
Minneapolis, MN 55402
Telephone: (612) 573-2006
Facsimile: (612) 573-2005

Date: April 22, 2005
SAL:jan

Scott A. Lund
Reg. No. 41,166

CERTIFICATE UNDER 37 C.F.R. 1.8: The undersigned hereby certifies that this paper or papers, as described herein, are being deposited in the United States Postal Service, as first class mail, in an envelope address to: Mail Stop Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 22ND day of April, 2005.

By:
Name: Scott A. Lund

CLAIMS APPENDIX

1-41. (Cancelled)

42. (Previously Presented) A printer, comprising:

a housing;

a print engine disposed within the housing;

a printed circuit assembly disposed within the housing;

a direct wire port electrically coupled to the printed circuit assembly;

an optical transducer electrically coupled to the printed circuit assembly and configured to transmit and receive information optically;

an optical data port formed in the housing; and

a light pipe assembly optically coupling and providing bi-directional communication between the optical transducer and the optical data port.

43. (Cancelled)

44. (Cancelled)

45. (Previously Presented) The printer of claim 42, wherein the light pipe assembly includes a transmit light pipe adapted to optically transmit information from the optical transducer to the optical data port, and a receive light pipe adapted to optically receive information via the optical data port and optically transmit the received information to the optical transducer.

46. (Previously Presented) The printer of claim 45, wherein the optical data port is arranged to communicate with an open environment, and wherein the transmit light pipe is configured to exit and diverge light from the optical data port to the open environment, and the receive light pipe is configured to converge light from the open environment on the optical transducer.

47. (Previously Presented) The printer of claim 46, wherein the light pipe assembly further includes a transmit lens configured to increase an angle of illumination of light exiting the optical data port to the open environment, and a receive lens configured to collimate light from the open environment into the receive light pipe.

48. (Previously Presented) The printer of claim 42,

wherein the housing has a first side and a second side,

wherein the printed circuit assembly, the optical transducer, and the light pipe assembly are disposed within the housing, and

wherein the direct wire port communicates with the first side of the housing and the optical data port communicates with the second side of the housing.

49. (Previously Presented) The printer of claim 48, wherein the second side of the housing is opposite the first side of the housing.

50. (Cancelled)

51. (Previously Presented) The printer of claim 42, further comprising:

a light source electrically coupled to the printed circuit assembly; and

a light guide optically coupling the light source and the optical data port.

52. (Previously Presented) A printer, comprising:

a printer housing;

a print engine disposed within the printer housing;

a printed circuit assembly disposed within the printer housing;

a direct wire port electrically coupled to the printed circuit assembly;

an optical transducer electrically coupled to the printed circuit assembly and configured to transmit and receive information optically;

an optical data port formed in the printer housing and arranged to communicate with an open environment;

a transmit light pipe disposed within the printer housing and adapted to optically transmit information from the optical transducer to the optical data port; and

a receive light pipe disposed within the printer housing and adapted to optically receive information via the optical data port and optically transmit the received information to the optical transducer.

53. (Previously Presented) The printer of claim 52, wherein the transmit light pipe is configured to exit and diverge light from the optical data port to the open environment, and the receive light pipe is configured to converge light from the open environment on the optical transducer.

54. (Previously Presented) The printer of claim 52, further comprising:

a transmit lens provided at an end of the transmit light pipe, wherein the transmit lens is configured to increase an angle of illumination of light exiting the optical data port to the open environment; and

a receive lens provided at an end of the receive light pipe, wherein the receive lens is configured to collimate light from the open environment into the receive light pipe.

55. (Previously Presented) The printer of claim 52, further comprising:

a light source electrically coupled to the printed circuit assembly; and

a light guide disposed within the printer housing and extended between the light source and the optical data port, wherein the light guide is adapted to transmit light from the light source to the open environment.